

NOTEWORTHY VASCULAR PLANT COLLECTIONS FROM NORTHWEST LOUISIANA

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ABSTRACT

The following four species are documented as new to Louisiana: *Sagittaria subulata*, *Senecio ampullaceus*, *Lechea san-sabeana*, and *Panicum diffusum*. Significant new records are provided for four species: *Grindelia lanceolata*, *Arabis canadensis*, *Geocarpon minimum*, and *Carex arkansana*. Species are listed alphabetically by family with comments and citation of voucher specimens.

RESUMEN

Las siguientes cuatro especies se documentan como nuevas para Louisiana: *Sagittaria subulata*, *Senecio ampullaceus*, *Lechea san-sabeana*, y *Panicum diffusum*. Se aportan nuevas citas significativas de cuatro especies: *Grindelia lanceolata*, *Arabis canadensis*, *Geocarpon minimum*, y *Carex arkansana*. Las especies se listan alfabéticamente por familia con comentarios y citación de especímenes testigos.

INTRODUCTION

Recent floristic work in northwestern Louisiana has resulted in the discovery of plants new to Louisiana and other significant records (Reid & Faulkner 2006; MacRoberts et al. 2007; Reid et al. 2007). In this paper we report four species new to Louisiana and four additional significant collections.

ALISMATACEAE

Sagittaria subulata (L.) Buchenau—*Sagittaria subulata* is not reported for Louisiana by USDA, NRCS (2007), Haynes and Hellquist (2000), Kartesz and Meacham (2005), MacRoberts (1984), or Thomas and Allen (1993). On 27 June 2006, we discovered hundreds of plants on a stretch of shoreline on Caddo Lake at Oil City, northern Caddo Parish. According to Haynes and Hellquist (2000), *S. subulata* ranges from Massachusetts south to Florida and west to Mississippi. Our record extends the range of *S. subulata* over 500 km to the northwest of its previously known western range limit in Mississippi.

Voucher specimens: **Caddo Parish:** along shore of Caddo Lake in Oil City, E1/2 SE1/4 S13 T20N R16W. lat/long 324319N, 935814W, open sunny lakeshore in saturated mucky sand, with *Eleocharis (microcarpa?)*, *Nelumbo lutea*, *Panicum hemitomom*, *Hydrocotyle verticillata*, *Luziola fluitans*, *Potamogeton nodosus*, flowering plants on hammocks, 100s of submerged plants, 27 Jun 2006, Reid 5809 (FSU, LSU); along shore of Caddo Lake immediately S of boat ramp in Earl G. Williamson Park, Oil City, flowers white, 11 Jul 2006, L.R. Raymond 2166 (LSUS).

ASTERACEAE

Grindelia lanceolata Nutt.—*Grindelia lanceolata* is reported for Louisiana by Riddell (1852) and Steyermark (1934). Steyermark (1934) cites Leavenworth specimens at G (= GH) and NY as his authority. MacRoberts (1984) and Thomas and Allen (1996) include *G. lanceolata* in the Louisiana flora on the basis of these older literature reports. We discovered *G. lanceolata* on 20 June 2007 in two small saline prairie remnants in Sabine Parish. The plants occurred on open slicks with overall light vegetative cover. During a return visit on 7 August 2007, we observed an estimated 500 plants, many of which were beginning to flower. Our record of *G. lanceolata* is apparently the first in Louisiana since Leavenworth's time, ca. 150 years ago (Ewan 1968).

Voucher specimens: **Sabine Parish:** Oakley's Pasture (a.k.a. Mary Lee's Pasture), N of LA 174 ca. 5 mi W of Converse, along E side of McDonald Bayou, NW1/4 NW1/4 S12 & SW1/4 SW1/4 S1, T9N R14W. lat/long: 314711N, 934544W, common in small area of remnant

saline prairie on the more extreme end within a large area of former saline prairie that was converted to Bahia grass long ago, *Talinum parviflorum*, *Cynodon dactylon*, *Sporobolus pyramidatus*, *Evolvulus sericeus* etc., remnant ca. 0.25 acres, 20 Jun 2007, Reid 6164, Faulkner et al. (LSU); N edge of pine plantation adjacent to Oakley's Pasture (a.k.a. Mary Lee's Pasture), N of LA 174 ca. 5 air mi W of Converse, E side of McDonald Bayou, SE1/4 NE1/4 S11 T9N R14W. lat/long: 314658N, 934554W, several hundred plants in small saline prairie remnant with abundant *Croton willdenowii*, also w/ *C. capitatus*, *Neptunia lutea*, *Talinum parviflorum*, *Hypericum drummondii*, & *Helenium amarum*, 7 Aug 2007, Reid 6211, Faulkner & Gregory (LSU, LSUS, NO).

Senecio ampullaceus Hook.—*Senecio ampullaceus* is not reported for Louisiana by MacRoberts (1984), Thomas and Allen (1996), Kartesz and Meacham (2005), USDA, NRCS (2007), or Barkley (2006). On 28 March 2007, we discovered a population of *S. ampullaceus* in the xeric sandhills (M.H. MacRoberts & B.R. MacRoberts 2006) of northern Caddo Parish. It was recently reported new to Arkansas (Singhurst & Holmes 1998) and Oklahoma (Holmes et al. 2006). Our record is apparently the first for *S. ampullaceus* from Louisiana.

Voucher specimen: **Caddo Parish:** S side of Kendrick Road near its W terminus at Vivian-Atlanta Rd., near NE corner of S15 & NW corner of S14, T22N R16W. lat/long: 325420N, 935957W, sandy field with conspicuous *Opuntia humifusa*, 28 Mar 2007, Reid 6020 & Faulkner (LSU).

BRASSICACEAE

Arabis canadensis L.—On 13 April 2006, we discovered a small population of *Arabis canadensis* in De Soto Parish growing on a low ridge embedded in a matrix of poorly drained *Quercus similis* – *Crataegus* spp. flatwoods. MacRoberts (1989) and Thomas and Allen (1996) include *A. canadensis* in the Louisiana flora on the basis of a specimen collected by Leggett (1578 – NLU) from Bossier Parish. Leggett (1976) reported it from one station in Bossier Parish where it was “localized and uncommon on sandy soil in mixed woods.” During recent visits to NLU, we have failed to locate this specimen. It is apparently not on loan and may have been misfiled or annotated to another taxon. Providing that the identification and locality data are correct, our record is the second from Louisiana. If the Leggett specimen was misidentified, then our record is the first for the state. In either case, our record represents the only confirmed extant *A. canadensis* population in Louisiana.

Voucher specimen: **De Soto Parish:** Dickson Prairie, S side of Cypress Bayou, 2 air mi NE of Stonewall, NW1/4 S9 T15N R14W, mixed hardwood-loblolly forest on low ridge, associated with *Geum canadense*, *Pinus taeda*, *Aesculus pavia*, *Senecio obovatus*, *Celtis laevigata*, *Dioscorea villosa*, and *Sabal minor*, 13 Apr 2006, Reid 5713 and Faulkner (LSU); same locality, 2 May 2006, Reid 5751, Faulkner et al. (FSU, LSU).

CARYOPHYLLACEAE

Geocarpon minimum Mackenzie—*Geocarpon minimum* is federally listed as threatened and is known from Arkansas, Louisiana, Missouri, and Texas (Nienaber 2005). This species was initially discovered in Louisiana in Winn Parish in 1989 with an additional population discovered nearby in 1992 (McInnis et al. 1993). These were the only two Louisiana populations known until 2006 when a third occurrence was discovered in a saline prairie in Caddo Parish (B.R. MacRoberts & M.H. MacRoberts 2006). A survey for *G. minimum* in saline prairies in Caddo, De Soto, Red River, and Winn parishes was conducted in March 2007 (MacRoberts & MacRoberts 2007) that yielded three new sites representing two new populations, all in De Soto Parish. Because two of the collection sites, Dickson Prairie and Dalton Prairie, are separated by a narrow drainage, we regard *G. minimum* from these two sites as constituting a single population. The third collection was from another saline prairie, Rambin Bayou Prairie, which is well-removed from the other sites.

Voucher specimens: **De Soto Parish:** Dickson Prairie, ca. 2 air mi NE of Stonewall, NW1/4 S9 T15N R14W. lat/long: 321827N, 934824W, saline prairie in and around slicks and in sparsely vegetated areas. associated with *Opuntia humifusa*, *Talinum parviflorum*, *Plantago pusilla*, *Houstonia rosea*, *H. micrantha*, *Crassula aquatica* and *Anagallis minima*, 7 Mar 2007, Reid 5995, Faulkner, MacRoberts & MacRoberts (LSU); Dalton Prairie, ca. 2.5 air mi SE of Keithville, SE1/4 S4 T15N R14W, lat/long: 321841N, 934807W, saline prairie, in and around slicks and sparsely vegetated areas associated with *Opuntia humifusa*, *Plantago pusilla*, *Talinum parviflorum*, *Houstonia rosea* and *H. micrantha*, etc., 7 Mar 2007, Reid 6003, Faulkner, MacRoberts & McRoberts (LSU); Rambin Bayou Prairie, N side of Rambin Bayou, W of I-49 via gas field roads, NE1/4 S7 T14N R13W. lat/long: 321303N, 934351W, ca. 250 plants counted, in and around slicks with *Anagallis minima*, *Crassula aquatica*, *Nothoscordum bivalve*, *Krigia occidentalis*, *Plantago pusilla*, *Houstonia* spp., and *Talinum parviflorum*, 19 Mar 2007, Reid 6010, Faulkner, & Smith (LSU).

CISTACEAE

Lechea san-sabeana (Buckley) Hodgdon—*Lechea san-sabeana* was reported for Louisiana by Riddell (1852) as *Lechea drummondii* Torr. & A. Gray and was excluded from the flora by Thomas and Allen (1996). MacRoberts (1984) lists *L. san-sabeana* as questionable in Louisiana and cites the Riddell report. Correll and Johnston (1970), Carr (2002), Kartesz and Meacham (2005), and Diggs et al. (2006) regard *L. san-sabeana* as a Texas endemic. In May and June 2007, we collected *L. san-sabeana* at three saline prairies in De Soto and Caddo parishes. It was common at these sites and was associated with pimple (mima) mounds.

Voucher specimens: **Caddo Parish:** Barron Road Saline Prairie, T16NR14WS27, N of Barron Road, S of Boggy Bayou. Mima mounds, 13 Jun 2007, B.R. & M.H. MacRoberts 7830 (LSU). **De Soto Parish:** Dickson Prairie, ca. 2 air mi NE of Stonewall, NW1/4 S9 T15N R14W. lat/long: 321827N, 934824W, abundant in and on edges of pimple mounds in high quality saline prairie, 4 May 2007, Reid 6064, Faulkner & Smith (TEX-LL); same locality, common on lower edges of pimple mounds, associated w/ *Iva angustifolia*, *Chamaecrista fasciculata*, *Rhynchospora harveyi*, *Helianthemum rosmarinifolium*, *Fimbristylis puberula*, & *Dichanthelium aciculare*, 21 Jun 2007, Reid 6179, Faulkner, & Jones (LSU, NO); Dalton Saline Prairie/Barren, T15NR14WS4, mima mounds, 12 Jun 2007, B.R. & M.H. MacRoberts 7825 (LSU).

CYPERACEAE

Carex arkansana (L.H. Bailey) L.H. Bailey—Louisiana is not included in the range of *Carex arkansana* by Ball (2002) but is so included by Kartesz and Meacham (2005), USDA, NRCS (2007), NatureServe (2007), and Thomas and Allen (1993). MacRoberts (1989) and Thomas and Allen (1993) cite a specimen from Caddo Parish (*Thieret* 25936 – LAF) collected in 1967 as the only record for Louisiana. B.R. MacRoberts and M.H. MacRoberts (2006) examined this specimen and confirmed its identification. On 2 May 2006, the authors discovered a small population of *C. arkansana* growing in a depression in a saline prairie in De Soto Parish. On 4 May 2007, we found a much larger population in a wet swale in a different part of the same prairie complex, adjacent to *Quercus similis*-*Crataegus brachyacantha* flatwoods. Our record is only the second record for this species in Louisiana and came 40 years after Thieret first collected it from the state.

Voucher specimen: **De Soto Parish:** Dickson Prairie, S side of Cypress Bayou, 2 air mi NE of Stonewall, NW1/4 S9 T15N R14W, rare, tiny depression in saline prairie, associated with *Carex (vulpinoidea?)*, full sun, 2 May 2006, Reid 5748, Faulkner et al. (LSU, SWSL)

POACEAE

Panicum diffusum Sw.—On 20 June 2007 we found *Panicum diffusum* to be locally common in a saline prairie remnant in Sabine Parish. It was associated with open slicks with much bare soil and light vegetative cover. This record is apparently the first for Louisiana as the species is not reported for the state by NatureServe (2007), USDA, NRCS (2007), Thomas and Allen (1993), Allen et al. (2004), nor Freckman and Lelong (2003). *Panicum diffusum* was previously known in the United States only from Texas; its range extends south to the Caribbean and Latin America (Diggs et al. 2006; Freckman & Lelong 2003).

Voucher specimen: **Sabine Parish:** Oakley's Pasture (a.k.a. Mary Lee's Pasture), N of LA 174 ca. 5 mi W of Converse, along E side of McDonald Bayou, NW1/4 NW1/4 S12 & SW1/4 SW1/4 S1, T9N R14W. lat/long: 314711N, 934544W, common in slicks in saline prairie, most of prairie converted to Bahia grass pasture except for these more extreme areas, *Talinum parviflorum* & *Sporobolus pyramidatus* common and characteristic, 20 Jun 2007, Reid 6173, Faulkner et al. (Ft. Polk Herbarium, LSU)

ACKNOWLEDGMENTS

We thank George Dickson and Ralph and Becky Dalton for allowing our surveys on Dickson and Dalton saline prairies, respectively. Sidney Evans and James Taylor allowed us to survey Barron Road Prairie in Caddo Parish. Judy Oakley allowed our survey of Oakley's Pasture. We thank Tommy Smith of Red River Forest Management for taking us to Rambin Bayou Prairie in De Soto Parish. Red River Forest Management also owns part of the *Grindelia lanceolata* population in Sabine Parish and we appreciate their kind permission to botanize on their lands. Robert Love of Louisiana Department of Wildlife and Fisheries informed us about Oakley's Pasture and an additional saline prairie site in Sabine Parish and led us to these sites. We thank D.W. and Patricia Little for allowing access to their property in order to collect *Senecio ampullaceus*. Ryan Hook allowed access to the *Senecio ampullaceus* location through his family's property and we appreciate his kindness and interest. Jason Singhurst verified our first collection of *Lechea san-sabeana*. We thank

Charles Bryson for verifying a duplicate of *Carex arkansana* and Robert Haynes for verifying a duplicate of *Sagittaria subulata*. Charles Allen verified a duplicate of *Panicum diffusum* and we appreciate his help. Dennis Bell made one last search at NLU for the Bossier Parish specimen of *Arabis canadensis* and we appreciate his help with trying to track down that specimen. We thank J. Scott Peterson, R. Dale Thomas, and an anonymous reviewer for providing helpful comments on this manuscript.

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